THAT WHICH IS CLAIMED IS:

1. A phased array antenna to be connected to a transceiver and comprising:

a substrate; and

an array of dipole antenna elements on said substrate to be connected to the transceiver, each dipole antenna element comprising

a medial feed portion, and a pair of legs extending outwardly therefrom, and

a load and a switch connected thereto for selectively coupling said load to the medial feed portion so that said dipole antenna element selectively functions as an absorber for absorbing received signals while said load dissipates energy associated therewith.

2. A phased array antenna according to Claim 1 wherein said load comprises a passive load.

3. A phased array antenna according to Claim 1 wherein said load comprises at least one of a printed resistive element and a discrete resistor.

4. A phased array antenna according to Claim 1 wherein adjacent legs of adjacent dipole antenna elements include respective spaced apart end portions having predetermined shapes and relative positioning to provide increased capacitive coupling between the adjacent dipole antenna elements.

5. A phased array antenna according to Claim

4 further comprising a respective impedance element electrically connected between the spaced apart end portions of adjacent legs of adjacent dipole antenna elements for further increasing the capacitive coupling therebetween.

6. A phased array antenna according to Claim 4 further comprising a respective impedance element adjacent the spaced apart end portions of adjacent legs of adjacent dipole antenna elements for further increasing the capacitive coupling therebetween.

7. A phased array antenna according to Claim 4 wherein each leg comprises:

an elongated body portion; and

an enlarged width end portion connected to an end of the elongated body portion.

8. A phased array antenna according to Claim 4 wherein the spaced apart end portions in adjacent legs comprise interdigitated portions.

9. A phased array antenna according to Claim 8 wherein each leg comprises:

an elongated body portion;

an enlarged width end portion connected to an end of said elongated body portion; and

a plurality of fingers extending outwardly from said enlarged width end portion.

10. A phased array antenna according to Claim

4 wherein the phased array antenna has a desired frequency range; and wherein the spacing between the end portions of adjacent legs is less than about one-half a 5 wavelength of a highest desired frequency.

11. A phased array antenna according to Claim 1 wherein said array of dipole antenna elements comprises first and second sets of orthogonal dipole antenna elements to provide dual polarization.

12. A phased array antenna according to Claim 1 further comprising a ground plane adjacent said array of dipole antenna elements.

13. A phased array antenna according to Claim 12 wherein the phased array antenna has a desired frequency range; and wherein said ground plane is spaced from said array of dipole antenna elements less than 5 about one-half a wavelength of a highest desired frequency.

14. A phased array antenna according to Claim 1 wherein each dipole antenna element comprises a printed conductive layer.

15. A phased array antenna according to Claim 1 wherein said substrate comprises an inflatable substrate.

16. A phased array antenna according to Claim 15 further comprising a dielectric layer between said

array of dipole antenna elements and said inflatable substrate, said dielectric layer having a dielectric constant greater than a dielectric constant of said inflatable substrate when inflated.

17. A phased array antenna comprising:

a substrate; and

an array of dipole antenna elements on said substrate, each dipole antenna element comprising

a medial feed portion, and a pair of legs extending outwardly therefrom, and

a passive load connected to the medial feed portion so that said dipole antenna element functions as an absorber for absorbing received signals while said passive load dissipates energy associated therewith.

18. A phased array antenna according to Claim 17 wherein said passive load comprises at least one of a printed resistive element and a discrete resistor.

19. A phased array antenna according to Claim 17 wherein adjacent legs of adjacent dipole antenna elements include respective spaced apart end portions having predetermined shapes and relative positioning to provide increased capacitive coupling between the adjacent dipole antenna elements.

20. A phased array antenna according to Claim 19 further comprising a respective impedance element electrically connected between the spaced apart end

portions of adjacent legs of adjacent dipole antenna elements for further increasing the capacitive coupling therebetween.

21. A phased array antenna according to Claim 19 further comprising a respective impedance element adjacent the spaced apart end portions of adjacent legs of adjacent dipole antenna elements for further increasing the capacitive coupling therebetween.

22. A phased array antenna according to Claim 19 wherein each leg comprises:

an elongated body portion; and

an enlarged width end portion connected to an end of the elongated body portion.

23. A phased array antenna according to Claim 19 wherein the spaced apart end portions in adjacent legs comprise interdigitated portions.

24. A phased array antenna according to Claim 23 wherein each leg comprises:

an elongated body portion;

an enlarged width end portion connected to an end of said elongated body portion; and

a plurality of fingers extending outwardly from said enlarged width end portion.

25. A phased array antenna according to Claim 19 wherein the phased array antenna has a desired frequency range; and wherein the spacing between the end

portions of adjacent legs is less than about one-half a wavelength of a highest desired frequency.

26. A phased array antenna according to Claim 18 wherein said array of dipole antenna elements comprises first and second sets of orthogonal dipole antenna elements to provide dual polarization.

27. A phased array antenna according to Claim 18 further comprising a ground plane adjacent said array of dipole antenna elements.

28. A phased array antenna according to Claim 27 wherein the phased array antenna has a desired frequency range; and wherein said ground plane is spaced from said array of dipole antenna elements less than about one-half a wavelength of a highest desired frequency.

29. A phased array antenna according to Claim 18 wherein each dipole antenna element comprises a printed conductive layer.

30. A phased array antenna according to Claim 18 wherein said substrate comprises an inflatable substrate.

31. A phased array antenna according to Claim 30 further comprising a dielectric layer between said array of dipole antenna elements and said inflatable substrate, said dielectric layer having a dielectric constant greater than a dielectric constant of said

inflatable substrate when inflated.

32. A method of making a phased array antenna that selectively functions as an absorber, the method comprising:

providing a substrate; and

forming an array of dipole antenna elements on the substrate, each dipole antenna element comprising a medial feed portion, and a pair of legs extending outwardly therefrom, and a passive load and a switch connected thereto for selectively coupling the passive load to the medial feed portion so that the dipole antenna element selectively functions as an absorber for absorbing received signals while the passive load dissipates energy associated therewith.

33. A method according to Claim 32 wherein forming the dipole antenna elements comprises forming adjacent legs of adjacent dipole antenna elements to include respective spaced apart end portions having predetermined shapes and relative positioning to provide increased capacitive coupling between the adjacent dipole antenna elements.

34. A method according to Claim 33 wherein each leg is formed with an elongated body portion, and with an enlarged width end portion connected to an end of the elongated body portion.

35. A method according to Claim 33 wherein forming the array of dipole antenna elements comprises forming the spaced apart end portions in adjacent legs

with interdigitated portions.

36. A method according to Claim 33 wherein the array of dipole antenna elements has a desired frequency range; and wherein the spacing between the end portions of adjacent legs is less than about one-half a wavelength of a highest desired frequency.

37. A method according to Claim 33 wherein forming the array of dipole antenna elements comprises forming first and second sets of orthogonal dipole antenna elements to provide dual polarization.

38. A method according to Claim 33 further comprising forming a ground plane adjacent the array of dipole antenna elements.

39. A method according to Claim 38 wherein the phased array antenna has a desired frequency range; and wherein the ground plane is spaced from the array of dipole antenna elements less than about one-half a wavelength of a highest desired frequency.

40. A method according to Claim 33 wherein the substrate comprises an inflatable substrate.

41. A method according to Claim 40 further comprising forming a dielectric layer between the array of dipole antenna elements and the inflatable substrate, the dielectric layer having a dielectric constant greater than a dielectric constant of the inflatable substrate when inflated.